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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,094	02/16/2001	Roger Pellenc	P20520	3219

7055 7590 07/16/2003

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EXAMINER

MAMMEN, NATHAN SCOTT

ART UNIT PAPER NUMBER

3671

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/784,094

Applicant(s)

PELLENC ET AL.

Examiner

Nathan S Mammen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-48 and 50-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-48, 50-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Appeal Brief***

1. Applicant's Appeal Brief is noted. In light of the newly cited art of this office action, prosecution is reopened. New grounds of rejection are set forth below.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 31-48, 50-54 are rejected under 35 U.S.C. 102(b) as being anticipated by van der Lely (U.S. Patent 4,050,519).

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The van der Lely '519 patent discloses a device for soil cultivating machine comprising a rotor (6) and a plurality of tools (25) mounted on the rotor. The at least one tool comprises a fixing end (24), a soil engaging end (26), and connecting portion (at the curve of the tine) which connects the fixing end to the soil engaging portion. The tool is movable mounted to the rotor. The active portion projects towards a direction of rotation of a rotor when the tool is installed on rotor (See Fig 1, right rotor).

Regarding claims 34-54 : The fixing end of the tool is pivotally mounted to the rotor (about axis b). The soil cultivating machine comprises a weeding machine and hoeing machine (inherent use of soil cultivating machine). The tool is interchangeably mounted to the rotor (see Abstract). The connecting portion is arranged to be inclined relative to a center axis running through the rotor (a). The soil engaging portion (26) extends radially outwards from the fixing

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end. The fixing end comprises a ring (23) adapted to receive a journal axle (24); the journal axle movably mounting the fixing end to the rotor. The tool comprises a shape which resembles a hook or "L" (see Fig. 2). The soil engaging portion comprises a sharp leading edge (i.e. the rib member on 26 – see Fig. 2) and a curved surface. The soil engaging portion has an inclined portion including first and second lower surfaces, with the first lower surface being arranged above the second lower surface when the tool is mounted on the rotor (see the hooked end portion of the tools 26 in Fig. 1). The soil engaging portion comprises a boss portion (in the absence of any definition to the contrary, the boss portion is the portion connecting the soil engaging portion to the connecting portion). The rotor (6) is rotatably mounted to the soil cultivating machine. Each of the plurality of tools (26) is pivotally mounted to the rotor (6). Each of the tools are adapted to pivot between an angle of 0 to 180 degrees (see Fig. 1, pivoting occurs about axis b), and thus also between an angle of 45 to 65 degrees. The tool can pivot at an angle greater than 180 degrees. Each of the tools is mounted about an axis (c) which is not parallel to the center axis (a) of the rotor. A guide (4) is arranged adjacent the rotor (6). A fixing flange (22) helps retain the at least one tool on the rotor. The active surface comprises a surface that is approximately planar (see Fig. 3 – the ribs on the tool). The planar surface is oriented at an angle relative to a plane that is substantially perpendicular to the pivot axis. The angle at which the planar surface makes to the plane perpendicular to the pivot axis depends upon the rotation of the tool relative to the axis (b). Thus, the angle that the planar surfaces makes includes an angle of 6 degrees.

Regarding claims 31 and 32: The fixing end of the tools are movably fixed to the rotor (6) via an axle (19). The axle is oriented (by adjusting device 16) at an angle relative to the

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center axis (a) of the rotor. The fixing portion includes a ring portion (23) movably fixed to the rotor via the axle. A mechanism (21, 22) biases the tools against the rotor.

4. Claims 31-33, 35-38, 40-44, 48, 50-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Honda et al. (U.S. Patent 3,246,704).

The Honda '704 patent discloses a device for soil cultivating machine comprising a rotor (3) and a plurality of tools (20) mounted on the rotor. The at least one tool comprises a fixing end (21), a soil engaging end (24), and connecting portion (22) which connects the fixing end to the soil engaging portion. The tool is movable mounted to the rotor about a ring portion (defined by the mounting holes in 21) which is movably fixed to the rotor via an axle (9). The active portion projects towards a direction of rotation of a rotor when the tool is installed on rotor (See Fig 2). A mechanism (10) biases the tool against the rotor. The axles are oriented at right angles relative to the center axis of the rotor. The connecting portion (22) is an intermediate space zone which extends downwardly and the soil engaging portion is an approximately planar active portion having a sharp leading edge.

Regarding claims 35-38, 40-44, 48, 50-54: The soil cultivating machine comprises a weeding machine and hoeing machine (inherent use of soil cultivating machine). The tool is interchangeably mounted to the rotor (i.e., the tool can be replaced). The connecting portion is arranged to be inclined relative to a center axis running through the rotor (Fig. 4). The soil engaging portion (26) extends radially outwards from the fixing end. The tool comprises a shape which resembles a hook (Fig. 4). The soil engaging portion comprises a sharp leading edge and a curved surface. The soil engaging portion has an inclined portion including first and second lower surfaces (Fig. 1 – the soil engaging portion curves downward), with the first lower surface

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being arranged above the second lower surface when the tool is mounted on the rotor. The soil engaging portion comprises a boss portion (21). The rotor (3) is rotatably mounted to the soil cultivating machine. Each of the plurality of tools (20) is pivotally mounted to the rotor (3). Each of the tools is mounted about an axis which is not parallel (i.e., at a right angle) to the center axis of the rotor. A guide (4) is arranged adjacent the rotor (6). A fixing flange (4) helps retain the at least one tool on the rotor. The active surface (24) comprises a surface that is approximately planar. The planar surface is oriented at an angle relative to a plane that is substantially perpendicular to the pivot axis. The angle at which the planar surface makes to the plane perpendicular to the pivot axis depends upon the rotation of the tool relative to the axis; thus, the angle that the planar surfaces makes includes an angle of 6 degrees (the angle defined by the sweep between the solid and phantom lines of Fig. 1).

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5. Claims 31-33, 35-41, 44-46, 51-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Osthaus (U.S. Patent 2,816,499).

The Osthaus '499 patent discloses a device for soil cultivating machine comprising a rotor (3) and a plurality of tools (6) mounted on the rotor. The at least one tool comprises a fixing end (attached to the rotor), a soil engaging end (at the opposite end of the tool), and connecting portion which connects the fixing end to the soil engaging portion. The tool is movably mounted to the rotor about a ring portion (mounting holes at fixing end of tool 6) which if movably fixed to the rotor via an axle (12). The active portion projects towards a direction of rotation of a rotor when the tool is installed on rotor (See Fig 2 – active portion curves inward). A mechanism (9) biases the tool against the rotor. The axles are oriented a parallel relative to the center axis of the rotor. The connecting portion is an intermediate space zone which extends downwardly (when

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the tool is at the bottom of the rotor – see Fig. 2) and the soil engaging portion is an approximately planar active portion having a sharp leading edge.

Regarding claims 35-41, 44-46, 51-53: The soil cultivating machine comprises a weeding machine and hoeing machine (inherent use of soil cultivating machine). The tool is interchangeably mounted to the rotor (i.e., the tool can be replaced). The connecting portion is inclined relative to a center axis running through the center of the rotor (i.e., the connecting portion curves, thus forming the hook). The soil engaging portion extends radially outwards from the fixing end. The fixing end forms a ring for adapted to receive a journal axle (12). The tool comprises a shape which resembles a hook (Fig. 2). The soil engaging portion comprises a sharp leading edge and a curved surface. The rotor (3) is rotatably mounted to the soil cultivating machine. Each of the plurality of tools (6) is pivotally mounted to the rotor (3) and can pivot about an angle of between 45 and 65 degrees. A fixing flange (16) helps retain the at least one tool on the rotor. The active surface of the tool (6) comprises a surface that is approximately planar (see Fig. 3). The planar surface is oriented at an angle relative to a plane that is substantially perpendicular to the pivot axis.

6. Claims 31-33, 35-36, 38-41, 44-46, 51-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Ariens (U.S. Patent 2,309,157).

The Osthaus '499 patent discloses a device for soil cultivating machine comprising a rotor (7) and a plurality of tools (14) mounted on the rotor. The at least one tool comprises a fixing end (16), a soil engaging end (15), and connecting portion (generally at reference numeral 14) which connects the fixing end to the soil engaging portion. The tool is movably mounted to the rotor about a ring portion (16) which is movably fixed to the rotor via an axle (17). The active

portion projects towards a direction of rotation of a rotor when the tool is installed on rotor (See Fig 1). A mechanism (19) biases the tool against the rotor. The axles are oriented a parallel relative to the center axis of the rotor. The connecting portion is an intermediate space zone which extends downwardly (when the tool is at the bottom of the rotor – see Fig. 1) and the soil engaging portion is an approximately planar active portion having a sharp leading edge.

Regarding claims 34, 35-36, 38-41, 44, 50-53: The fixing end comprises an opening (defined by 16) concentric to the pivot axis. The soil cultivating machine comprises a weeding machine and hoeing machine (inherent use of soil cultivating machine). The tool is interchangeably mounted to the rotor (i.e., the tool can be replaced). The soil engaging portion extends radially outwards from the fixing end. The fixing end (16) forms a ring for adapted to receive a journal axle (17). The tool comprises a shape which resembles a hook (Fig. 1). The soil engaging portion comprises a sharp leading edge and a curved surface. The rotor (7) is rotatably mounted to the soil cultivating machine. A guide (24) and a fixing flange (10) helps retain the at least one tool on the rotor. The active surface (15) of the tool comprises a surface that is approximately planar (see Fig. 1). The planar surface is oriented at an angle relative to a plane that is substantially perpendicular to the pivot axis.

### ***Response to Arguments***

7. In view of the Appeal Brief filed on 4/28/03, PROSECUTION IS HEREBY REOPENED. New Grounds of rejection are set forth above.

To avoid abandonment of the application, appellant must exercise one of the following two options:



(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

8. Regarding the rejection of claim 46 under 35 U.S.C. 112: The rejection is withdrawn.

9. Regarding Applicant's arguments in the Appeal Brief: Applicant states that "the Examiner has never identified" that the tools are movably mounted. Applicant's attention is directed to the above rejection and to the final rejection where the examiner states "The...tool is pivotally mounted to the rotor (about axis b)." Applicant's attention is further directed to Fig. 1, which shows the rotations of the tools about axis b. The rotor, as stated in the above rejection, is defined about axis a. The clip biases the tools against rotor by holding the tools against the rotor (see Webster's Collegiate Dictionary, 10<sup>th</sup> Ed.: "Bias: 3a: Bent Tendency.") Applicant has not provided any other definition or structural limitation to distinguish Applicant's biasing with that of the van der Lely '519 patent. As stated previously, the rotor is defined by the rotational axis a and includes the structure for attaching the "subsets" of tools to axis a. Thus, the rings are more properly considered to be a part of the tool, not the rotor. Applicant is reminded that he has not claimed any structure to be "integral". Thus, the tool can include structure which is not integral with it (ring, journal). The tool includes all the mechanical connections of the tine (25). Finally, the rib is planar, albeit small. Since Applicant has not provided any claim limitations to narrowly define planar, any planar surface reads on the claim.

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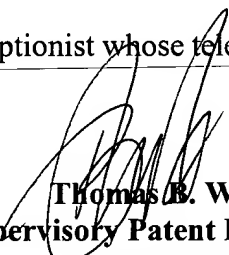
***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (703) 306-5959. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (703) 308-3870. The fax number for this Group is (703) 305-3579.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-1113.



**Thomas B. Will**  
**Supervisory Patent Examiner**  
**Group 3600**

**NSM**  
**7/14/03**

*Nathan S. Mammen*